CITY OF WICHITA

July 3, 2012

The Engineering Division is requesting proposals for inspection of the T-walls on the Central Rail Corridor, south of 21st Street North.

The selection of consultant firms for the projects by the City's Staff Screening and Selection Committee will be based on several factors, including: (1) approach to projects; (2) work schedule; (3) staff assignments to the projects; (4) performance accomplishments on previous projects of similar nature and comparable size with references provided; and (5) knowledge and expertise. **The consultant must submit a fee with the proposal**. Please submit one (1) original and nine (9) copies of your proposals to Melinda Walker, Purchasing Manager, 12th Floor, City Hall, 455 North Main, Wichita, Kansas by 5:00 p.m., Friday, July 27, 2012.

No profit or handling fee will be paid to the consultant for services provided by sub-contractors including but not limited to landscape architectural services, geotechnical services, right-of-way services, artists, etc. Please take this into account when preparing your fee proposals.

If you have any questions, please call **Shawn Mellies** at (316) 268-4632.

Proposed Schedule is as follows:

RFP Advertised	July 6, 2012
Last day for Addenda	July 18, 2012
Proposals Due	July 27, 2012
Interviews	Week of August 6 (if necessary)

Wichita Central Corridor (WCC) Wall Inspection
Contract Scope of Services
Project No. 472 85063

Inspection

1. The wall inspection will be conducted in accordance with BNSF and OSHA regulations.
2. The Consultant shall be responsible for permits, traffic control, signage and safety.
3. Project Location and Description:

   The Wichita Central Corridor Railroad Grade Separation Structure begins 500 feet south of 17th Street, between Barwise Street to the east, and Santa Fe Street to the west. From there it proceeds approximately 1.9 miles south to Douglas Avenue.

   The retaining walls have a surface area of 318,610 square feet and range in height up to 28 feet tall. They consist of approximately 8,500 precast concrete T-Wall® units, predominantly 7.5' x 5' x 8" thick, with 5' x 7" thick stem walls extending back into the embankment 10 to 20 feet. Each T-Wall® unit is its own free standing structure, not connected to any other unit or structure, but held in place by gravity and the granular backfill material interacting with the T-Wall® stem. The walls are topped by 16,982 square feet of 5'-9" x 15' x 1' precast concrete parapet walls attached to 4'-6" x 1' horizontal cast-in-place moment slabs. These are also free standing structures, held in place by gravity and the weight of the asphalt pavement on the moment slab.

   The ½" (nominal) gaps between the T-Wall® units are covered on the back side with filter fabric to contain the granular backfill material, and wire rodent screen to protect the filter fabric. In general, the walls extend at least 2'-6" below grade and they rest on a leveling pad. The leveling pad was constructed for grade control only, and is not considered a structural unit. On the back sides of the walls are 132 deck drains serving the track area above. They drop vertically and discharge through the front faces of the walls onto splash blocks or rip rap.

   Walls to be inspected are:

Wall No.	Length (ft)	Height (ft)	Location
West Wall #1	2,096.48	7 to 25	17th St. to 13th St.
West Wall #2	3,710.6	24 to 26	13th St. to Murdock
West Wall #3	1,375.64	24 to 26	Murdock to Central
West Wall #4	1,233.3	24 to 28	Central to 2nd St.
West Wall #5	572.75	24 to 28	2nd St. to 1st St.
West Wall #6	585.51	16 to 24	1st St. to Douglas
East Wall #1	1,396.82	11 to 23	17th St. to 13th St.
East Wall #2a	2,684.73	4 to 25	13th St. to 9th St.
East Wall #2b	90.42	4 to 25	N. side of Murdock
East Wall #3	1,375.64	2 to 26	Murdock to Central
East Wall #4	1,233.30	14 to 24	Central to 2nd St.
East Wall #5	592.75	10 to 24	2nd St. to 1st St.
East Wall #6	45.25	4 to 9	1st St. to Douglas
Total	16,993.19		

4. Items to be inspected and documented are:

    A. Settlement and bulging: Each of the 13 walls will be inspected for indications of differential settlement and bulging. Individual T-Wall® panels bulging outward, or distortion in the alignment of the parapet wall will be brought to the immediate attention of the City's contract administrator. The vertical joints where the retaining walls abut the bridges will receive particular attention. This joint material will be checked for differential settlement and loss of granular backfill material.

    B. Drainage and Erosion: Each of the 13 walls will be inspected for drainage and erosion issues. There should be positive drainage away from the walls at all locations. Each of the 132 deck drain outlets will be inspected with a flashlight for blockage, integrity of the caulk seal, and erosion around the splash block or rip rap. The three northernmost deck drains on West Wall No. 1 discharge into an underground collection pipe that discharges into the storm sewer at 16th Street, and the cleanouts will be opened and checked for excessive silt that could indicate sand loss and/or the need to clean the discharge pipe. The ground level deck drain outlets at Stations 11156+85 and 11166+35, the concrete drainage flume running along the east side of East Wall No. 4 from Second Street to Central Avenue, and the area inlet located 20 feet north of the First Street retaining wall and 12 feet east of East Wall No. 5 will be inspected. The asphalt paving and deck drains in the track area atop the embankment will be inspected. Maintenance of asphalt paving is the responsibility of the BNSF.

    C. Condition of each T-Wall® element: The inspection will address cracks larger than shrinkage cracks that may be signs of distress. Cracking and spalling at the stem wall will be brought to the immediate attention of the City's contract administrator. Panel faces and edges will be inspected for spalling, efflorescence, delamination, exposed reinforcing steel and other surface defects. Joints will be inspected for damage or loss of sand backfill material, and rodent infestations. All 13 walls will be inspected for collision damage.

During the inspection, Critical Findings shall be reported to the owner immediately by the most expedient method.

5. Inspection Methods

    A. Notification: The Consultant shall notify the BNSF Road Master before entering the railroad property, and upon leaving, and will follow railroad safety procedures. The Consultant shall also notify the BNSF Engineering Department 30 days in advance of inspection and give them the opportunity to accompany the engineer.

    B. Personal protection: All persons participating in the inspection will wear the appropriate Railroad Personal Protection Equipment (PPE) as described in the Railroad's orientation procedures. The Consultant shall be responsible for traffic control, signage and safety for its inspection personnel.

    C. Points of limited access: A ladder will be required to access the area on the east side of East Wall No. 5 between First Street and Second Street. A ladder may also be necessary for viewing East Wall No. 6, unless access is available through the Great Plains Transportation Museum.

    D. Inspection from ground level: A portion of the inspection will be performed from ground level. Ladders will be used in inspecting for bulging, alignment changes and other items of concern. At a minimum of two locations on each wall, the inspector will scale a ladder to sight along the horizontal joints. This will also occur where the joint pattern changes, at additional locations on the longer walls, and at West Wall No. 1 where the wall kicks-out for a railroad signal house, preventing the inspector from sighting along the entire wall.

E. Deck drains: A flashlight will be used from ground level at the deck drain outlets and from atop the elevation at the inlets to inspect for blockage. The 3 northernmost deck drains on West Wall No.1 will include opening the cleanouts to inspect for blockage.

F. Elevated track area: Inspectors will walk the elevated track area above the walls to check for cracking in the asphalt surface or separation of asphalt paving from concrete that could allow water infiltration. Each of the 132 deck drains will be inspected for signs of blockage or differential settlement in the embankment. The asphalt paving at the end of each bridge will be inspected for settlement or cracking. The alignment of the parapet wall will be checked, and any undue distortion in the alignment of the parapet wall will be brought to the immediate attention of the City's contract administrator.

G. Items excluded from the inspection: This is a visual inspection only, and does not include any testing or invasive procedures. The bridges, the embankments abutting the retaining walls, and the portions of the walls below ground level are specifically excluded from the inspection. The inspection does not include any surveys or measurements for long term monitoring, but does include measurements of specific items of concern identified during the inspection.

Items of concern identified during the inspection, beyond normal settlement, wear and tear, will be measured and photographed. Where necessary, ladders will be used for this task.

Deliverables

1. Report: The report will be organized to address each of the 13 walls individually. It will include general wall descriptions and specifically address settlement and bulging, drainage and erosion, condition of T-Wall® elements. It will include the time and date of each inspection, the name of each inspector, and a brief summary of the inspector's credentials. For deficiencies or concerns noted, the report will include photographs, measurements, a written description, and suggested remedy, where appropriate. Deficiencies or concerns will be referenced to the master T-Wall numbering system and/or the wall number, station, and height above ground level. Items of particular concern that were identified during the inspection and brought to the attention of the City's contract administrator will be specifically addressed. The report will include general maintenance recommendations.

Schedules

1. Initial schedule: The inspection is expected to take up to two weeks. Four copies of the report and one electronic copy on a flash drive will be submitted within 20 days of completion. The City is required to provide one copy of the report to the BNSF Engineering Department within 30 days of the inspection.

2. Subsequent inspections and reports: This agreement is for 1 (one) inspection and report.